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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,729	04/09/2004	Anders Landin	5681-13301	1516

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MHKKG/SUN
P.O. BOX 398
AUSTIN, TX 78767

EXAMINER	
VERDERAMO III, RALPH	

ART UNIT	PAPER NUMBER
2186	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/821,729	LANDIN ET AL.	
	Examiner	**Art Unit**	
	RALPH A. VERDERAMO III	2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _19 May 2008_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-42_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-42_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

In view of the Appeal Brief filed on 5/19/2008, PROSECUTION IS HEREBY **REOPENED**. New grounds of rejection are set forth below. All previous rejections not contained in this action have been withdrawn hereto by the Examiner.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 12, 16, 26, 28 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by "The Sun Fireplane System Interconnect" by Alan Charlesworth (herein after referred to as Alan).

Regarding claims 1, 16 and 28, Alan describes a system, comprising: an inter-node network (SSM Interconnect of FIG. 3 connecting snooping coherence domains (nodes)); and a plurality of nodes coupled by the inter-node network (multiple snooping coherence domains (nodes) are connected through the SSM Interconnect shown in FIG. 3 also explained in sec. 3 on page 3 referring to Large Fireplane systems), wherein each of the plurality of nodes includes a plurality of active devices (processors in the snooping coherence domain (node) of FIG. 3), an interface configured to send and receive coherency messages on the inter-node network (SSM Agent of FIG. 3), and an address network coupling the plurality of active devices to the interface (The bus shown in the snooping coherence domain of FIG. 3); wherein an active device included in a node of the plurality of nodes is configured to initiate a write back transaction involving a coherency unit by sending either a first type of address packet or a second type of address packet on the address network dependent on whether the active device is included in a multi-node system (WriteBack request (page 5, sec. 6.1) which occurs when there is a request to write back inside a snooping coherence domain (also in a Mid-size Fireplane system where there is only a single snooping coherence domain (node) (page 3, sec. 3)) or Remote_WriteBack

request which occurs when there is a request to get a write back done in another snooping coherence domains (multiple nodes) (page 5, sec. 6.2)).

Regarding claims 12, 26 and 39, Alan describes the system of claim 1 (see above), the node of claim 16 (see above) and the method of claim 28 (see above), wherein the first type of address packet is a remote write stream (RWS) address packet (Remote_WriteStream request (page 5, sec. 6.2)) and the second type of address packet is a write stream (WS) address packet (WriteStream request (page 5, sec. 6.1)), wherein the active device is configured to send the RWS address packet if the active device is included in a multi-node system (Remote data is only possible in Large Fireplane systems using multiple snooping coherence domains (nodes) (page 3, sec. 3)) and to send the WS address packet if the active device is included in a single node system (WriteStream request (page 5, sec. 6.1) which occurs when there is a request to store block to memory inside a snooping coherence domain (also in a Mid-size Fireplane system where there is only a single snooping coherence domain (node) (page 3, sec. 3)).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 2 - 4, 17 - 19 and 29 - 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alan in view of McCracken et al. US Patent No. 6381681 (herein after referred to as McCracken).

Regarding claims 2, 17 and 29, Alan describes the system of claim 1 (see above), the node of claim 16 (see above) and the method of claim 28 (see above), wherein the first type of address packet is a remote write back (RWB) address packet (Remote_WriteBack request (page 5, sec. 6.2)) and the second type of address packet is a write back (WB) address packet (WriteBack request (page 5, sec. 6.1)), wherein the active device is configured to send the first type of RWB address packet if the active device is included in a multi-node system (Remote data is only possible in Large Fireplane systems using multiple snooping coherence domains (nodes) (page 3, sec. 3)). Alan does not specifically describe wherein each active device included in the node having access to or ownership of the coherency unit is configured to ignore the RWB address packet or wherein each active device included in the node having access to or ownership of the coherency unit is configured to transition an access

right or an ownership responsibility for the coherency unit in response to the second type of address packet.

Alan does describe how during a remote transaction the local CPU's (active devices) ignore the transaction (page 7, sec. 8.2). Examiner believes that since the Remote_WriteBack is a remote transaction it would have been obvious to one of ordinary skill in the art at the time of the invention that a Remote_WriteBack would operate in a similar matter as the described remote transaction and therefore the local CPU's would ignore the Remote_WriteBack. Alan still does not specifically describe wherein each active device included in the node having access to or ownership of the coherency unit is configured to transition an access right or an ownership responsibility for the coherency unit in response to the second type of address packet.

McCracken describes that release operations include any operation that causes a processor to no longer own a cache line such as write backs (column 4, lines 46 – 48). Therefore if a processor (CPU or active device) requests a write back it will no longer own the cache line (coherency unit) (transition access right or an ownership responsibility).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have transitioned access rights to or an ownership responsibility for a coherency unit in response to a write back as described by McCracken with the invention of Alan because McCracken shows that a write back operation results in a processor no longer owning a cache line (column 4, lines 46 - 48).

Regarding claims 3, 18 and 30, Alan in view of McCracken describes the system of claim 2 (see above), the node of claim 17 (see above) and the method of claim 29 (see above), wherein the active device is configured to send the RWB address packet if the active device is included in a multi-node system and if the coherency unit is not mapped by any memory subsystem included in the node (Remote data is only possible in Large Fireplane systems using multiple snooping coherence domains (nodes) (Alan, page 3, sec. 3). Furthermore, Alan describes that requests for remote data are issued for non-local physical addresses (Alan, page 5, sec. 6.2). If the data is at a non-local physical address it is therefore not mapped by any memory subsystem included in the node).

Regarding claims 4, 19 and 31, Alan in view of McCracken describes the system of claim 3 (see above), the node of claim 18 (see above) and the method of claim 30 (see above), wherein an interface included in the node (SSM Agent of FIG. 3) is configured to send a coherency message via the inter-node network to a home node for the coherency unit in response to receiving the remote write back address packet (Remote_WriteBack request the local SSM agent to get a WriteBack done in another snooping coherence domain (node) (Alan, page 5, sec. 6.2)). While it is not specifically described that each active device in the node ignores the RWB address packet, Alan does describe how during a remote transaction the local CPU's (active devices) ignore the transaction (page 7, sec. 8.2). Examiner believes that since the Remote_WriteBack is a remote transaction it would have been obvious to one of ordinary skill in the art at the

time of the invention that a Remote_WriteBack would operate in a similar matter as the described remote transaction and therefore the local CPU's would ignore the Remote_WriteBack.

6. Claims 5 - 9, 20 - 23 and 32 - 36 rejected under 35 U.S.C. 103(a) as being unpatentable over Alan in view of McCracken as applied to claims 4, 19 and 31 above further in view of Hagersten US Patent Application Publication No. 2001/0051977 (herein after referred to as Hagersten).

Regarding claims 5 and 32, Alan in view of McCracken describe the system of claim 4 (see above) and the method of claim 31 (see above). While they do describe a remote write back transaction, they do not specifically describe wherein a home interface in the home node is configured to lock the coherency unit in response to the coherency message and to responsively send an additional configured message requesting initiation of a proxy read-to-own-modified subtransaction to the interface in the node.

Hagersten describes that a write back request is performed when a coherency unit is to be written to the home node of the coherency unit. The home node replies with permission to write the coherency unit back (responsively send an additional coherency message requesting initiation of a proxy read-to-own-modified subtransaction to the interface in the node). The coherency unit is then passed to the home node with the coherency completion (page 13, paragraph [0169]). Alan describes the interfaces used to send and receive such inter-node messages (SSM Agents of Alan FIG. 3). Furthermore while

Hagersten does not explicitly describe that the coherency unit is locked in response to the received coherency message it would have been obvious to one of ordinary skill in the art at the time of the invention to do so because coherency should be protected when transactions that have an affect on the coherency have not completed.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the steps for accomplishing a write back as described by Hagersten with the invention of Alan in view of McCracken because Hagersten shows that a write back request is performed in such a way (page 13, paragraph [0169]).

Regarding claims 6 and 33, Alan in view of McCracken and Hagersten describe the system of claim 5 (see above) and the method of claim 32 (see above), wherein in response to receiving the additional coherency message, the interface in the node is configured to send a proxy read-to-own-modified address packet on the address network (Hagersten describes that a write back request is performed when a coherency unit is to be written to the home node of the coherency unit. The home node replies with permission to write the coherency unit back (responsively send an additional coherency message requesting initiation of a proxy read-to-own-modified subtransaction to the interface in the node). The coherency unit is then passed to the home node with the coherency completion (page 13, paragraph [0169]). Alan describes the interfaces used to send and receive such inter-node messages (SSM Agents of Alan FIG. 3)).

Regarding claims 7, 21 and 34, Alan in view of McCracken and Hagersten describe the system of claim 6 (see above), the node of claim 20 (see below) and the method of claim 33 (see above), wherein each active device included in the node having an access right to the coherency unit and not having an ownership responsibility for the coherency unit is configured to invalidate the access right in response to the proxy read-to-own-modified address packet (Alan describes that cache tags represent the actual state of the data in the cache and consequently they transition with the data transfer or data modification (page 4, sec. 4.3 and 4.3.1). Since data is being transferred to the home node for write back the state should be invalid).

Regarding claims 8, 22 and 35, Alan in view of McCracken and Hagersten describe the system of claim 6 (see above), the node of claim 20 (see below) and the method of claim 33 (see above), wherein the active device is configured to transition an ownership responsibility for the coherency unit upon receipt of the proxy read-to-own modified address packet (Alan describes that cache tags represent the actual state of the data in the cache and consequently they transition with the data transfer or data modification (page 4, sec. 4.3 and 4.3.1). Since data is being transferred to the home node for write back the state should be invalid, which would relinquish ownership) and to responsively send a data packet corresponding to the coherency unit to the interface (Hagersten describes that a write back request is performed when a coherency unit is to be written to the home node of the coherency unit. The home node replies with permission to

write the coherency unit back (responsively send an additional coherency message requesting initiation of a proxy read-to-own-modified subtransaction to the interface in the node). The coherency unit is then passed to the home node with the coherency completion (page 13, paragraph [0169])).

Regarding claims 9, 23 and 36, Alan in view of McCracken and Hagersten describe the system of claim 8 (see above), the node of claim 22 (see above) and the method of claim 35 (see above), wherein the active device is configured to transition an access right corresponding to the coherency unit upon sending the data packet (Alan describes that cache tags represent the actual state of the data in the cache and consequently they transition with the data transfer or data modification (page 4, sec. 4.3 and 4.3.1). Since data is being transferred to the home node for write back the state should be invalid, which would relinquish ownership as well as current access right).

Regarding claim 20, Alan in view of McCracken describe the node of claim 19 (see above). While they do describe a remote write back transaction, they do not specifically describe wherein a home interface in the home node is to responsively send a responsive coherency message for the coherency unit to the interface in the node wherein the interface in the node is configured to send a proxy read-to-own-modified address packet on the address network.

Hagersten describes that a write back request is performed when a coherency unit is to be written to the home node of the coherency unit. The home node replies with permission to write the coherency unit back (responsive

coherency message). The coherency unit is then passed to the home node with the coherency completion (page 13, paragraph [0169]). In order to pass the coherency unit to the home node it must have been retrieved from the active device that contained the data using a request (proxy read-to-own-modified address packet) Alan describes the interfaces used to send and receive such inter-node messages (SSM Agents of Alan FIG. 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the steps for accomplishing a write back as described by Hagersten with the invention of Alan in view of McCracken because Hagersten shows that a write back request is performed in such a way (page 13, paragraph [0169]).

7. Claims 10, 24 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alan in view of McCracken as applied to claims 2, 17 and 29 above further in view of Josan et al. US Patent No. 6857082 (herein after referred to as Josan), Hagersten and Nishtala et al. US Patent No. 5581729 (herein after referred to as Nishtala).

Regarding claims 10, 24 and 37, Alan in view of McCracken describe the system of claim 2 (see above), the node of claim 17 (see above) and the method of claim 29 (see above), wherein the active device is configured to send the RWB address packet if the active device is included in a multi-node system (Remote data is only possible in Large Fireplane systems using multiple snooping coherence domains (nodes) (page 3, sec. 3). Remote_WriteBack request page 5, sec. 6.2) and the WB address packet if the active device is included in a single

node system (WriteBack request (page 5, sec. 6.1) which occurs when there is a request to write back inside a snooping coherence domain (also in a Mid-size Fireplane system where there is only a single snooping coherence domain (node) (page 3, sec. 3)). While Alan describes an active device sending a RWB and WB address packets (Remote_WriteBack request page 5, sec. 6.2 and WriteBack request page 5, sec. 6.1), they do not specifically describe the situation of if the active device sends the RWB address packet and another active device included in the node gains ownership of the coherency unit before an interface included in the node sends a responsive address packet, the other active device is configured to provide data to the interface in response to the responsive address packet or the other situation that if the active device sends the WB address packet and the other active device included in the node gains ownership of the coherency unit before a memory subsystem included in the node sends a different responsive address packet the active device is configured to send a NACK data packet to the memory subsystem.

Josan describes that failover enables the resources owned by the failed node to be taken over by the surviving node (column 1, lines 34 – 35). Therefore if one of the active devices in the node were to fail another active device included in the node would gain ownership of the coherency unit (resource).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have allowed another active device to take over ownership of a failed active device’s coherency unit as suggested by Josan with the invention of

Alan in view of McCracken because Josan shows that this technique allows a system to survive a failure (column 1, lines 34 – 35). Alan in view of McCracken and Josan still do not specifically disclose the active device providing data to the interface or sending a NACK data packet to the memory subsystem.

Hagersten describes that a write back request is performed when a coherency unit is to be written to the home node of the coherency unit. The home node replies with permission to write the coherency unit back (responsive address packet). The coherency unit is then passed to the home node with the coherency completion (page 13, paragraph [0169]). Alan describes the interfaces used to send and receive such inter-node messages (SSM Agents of Alan FIG. 3). Furthermore it would have been obvious to one of ordinary skill in the art at the time of the invention that whatever device contains (has ownership) of the data to be written back should be the device to provide that data when it is to be written back.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the steps for accomplishing a write back as described by Hagersten with the invention of Alan in view of McCracken and Josan because Hagersten shows that a write back request is performed in such a way (page 13, paragraph [0169]). They still do not describe sending a NACK data packet to the memory subsystem.

Nishtala describes that if when the results (responsive address packet) of the snoop (WB address packet) for the transaction are received, if the Dtag

corresponding for the specified address in the writeback transaction request is invalid, that means another data processor has performed a transaction that required invalidation of the address data block. When this happens, the writeback transaction is cancelled by the system controller by sending a writeback cancel replay message (NACK) to the requesting UPA port (column 23, lines 18 – 29).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have sent a NACK as described by Nishtala in the invention of Alan in view of McCracken, Josan and Hagersten because Nishtala shows that the writeback has become unnecessary and therefore should be cancelled (column 23, lines 18 - 29).

8. Claims 11, 25 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alan in view of Baxter et al. US Patent No. 5887146 (herein after referred to as Baxter) and Martin et al. “Bandwidth Adaptive Snooping” (herein after referred to as Martin).

Regarding claims 11, 25 and 38, Alan describes the system of claim 1 (see above), the node of claim 16 (see above) and the method of claim 28 (see above) but does not disclose the use of a mode register.

Martin, which describes snoop protocols, discloses the use of a counter to determine how many nodes are being used in the system (Martin Page 2).

Baxter, which describes a multi-node system, discloses the use of a mode register (Baxter, column 47, line 66).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include a mode register to determine if the node is in a multi-node system because it is important to know the network utilization (Martin Page 2) and mode registers are well known and conventional in the art.

9. Claims 13, 27 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alan.

Regarding claims 13, 27 and 40, Alan describes the system of claim 12 (see above), the node of claim 26 (see above) and the method of claim 39 (see above), wherein an interface included in the node (SSM Agent of FIG. 3) is configured to respond to the first type of address packet by sending a coherency message via the inter-node network to a home node for the coherency unit (Remote_WriteStream request the local SSM agent to get a WriteStream done in another snooping coherence domain (node) (Alan, page 5, sec. 6.2)). While it is not specifically described that each active device in the node ignores the RWS address packet, Alan does describe how during a remote transaction the local CPU's (active devices) ignore the transaction (page 7, sec. 8.2). Examiner believes that since the Remote_WriteStream is a remote transaction it would have been obvious to one of ordinary skill in the art at the time of the invention that a Remote_WriteStream would operate in a similar matter as the described remote transaction and therefore the local CPU's would ignore the Remote_WriteStream.

10. Claims 14, 15, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alan in view of Hagersten.

Regarding claims 14 and 41, Alan describes the system of claim 13 (see above) and the method of claim 40 (see above). While Alan does describe a remote write stream transaction, it is not specifically described wherein a home interface in the home node is configured to lock the coherency unit and to responsively send an invalidating coherency message to one or more ones of the plurality of nodes and to send a write stream coherency message to the interface in the node.

Hagersten describes a home agent (home node) receiving a coherency request (coherency message) and in response blocking the affected coherency unit (locking the coherency unit) and transmitting a coherency reply (send a write stream coherency message) to the request agent (requesting node) (pages 12 – 13, paragraphs [0156] - [0160]). Alan describes the interfaces used to send and receive such inter-node messages (SSM Agents of Alan FIG. 3). Furthermore while it is not explicitly described that invalidating messages are sent in response to the received coherency message it would have been obvious to one of ordinary skill in the art at the time of the invention to do so because coherency should be maintained and a write transaction would cause other copies of the data to no longer be up to date and therefore should become invalid (Cache tags transition with the data transfer or data modification. Cache Invalid, Alan, page 4, sec. 4.3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the steps for accomplishing a write stream as described by Hagersten with the invention of Alan in view of McCracken because Hagersten shows that a write stream request is performed in such a way (pages 12 – 13, paragraphs [0156] – [0160]).

Regarding claims 15 and 42, Alan in view of Hagersten describe the system of claim 14 (see above) and the method of claim 41 (see above), wherein the interface in the node is configured to send a pull request data packet to the active device in response to receiving acknowledgment coherency messages from each of the one or more ones of the plurality of nodes that received the invalidating coherency message; wherein in response to the pull request data packet, the active device is configured to send an additional data packet containing a copy of the coherency unit to the interface (During write state home agent transmits a coherency reply to request agent. Home agent remains in write reply state until a coherency completion is received from request agent. If data is received with the coherency completion, home agent transitions to write data state (Hagersten, page 13, paragraph [0160]). In order for the request agent to send the data to the home agent it would have to acquire it from the active device which had the data to be written (pull request to the active device). Furthermore Alan describes the interfaces used in the inter-node communication (SSM Agent of FIG. 3)).

Response to Arguments

11. Applicant's arguments with respect to claims 1 - 42 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RALPH A. VERDERAMO III whose telephone number is (571)270-1174. The examiner can normally be reached on M-Th 7:30 - 5, every other Friday 7:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ralph A Verderamo III/
Examiner, Art Unit 2186

/Matt Kim/
Supervisory Patent Examiner, Art Unit 2186

rv

July 17, 2008